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FEB 20 2007

Serial No. 10/661,214

Part 3 – Remarks

This Amendment and Response is responsive to the final Office Action mailed November 20, 2006. In the November 20 Office Action, claims 1-3, 5, 6, and 8-12, 19-22 and 39 were rejected under 35 USC 103(a) as obvious from Ohle (3,802,158) in view of Diachuk (4,350,504); claims 13-18 were noted as allowable if rewritten an independent form including all the limitations of the base and intervening claims; and claims 23-38 and 40 were allowed.

Consideration of the amendments presented above is respectfully requested, because the amendments cancel claims which have been rejected, comply with requirements of form set forth in the November 20 Office Action, and otherwise present the application in better form for consideration on appeal.

Claims 13-18, 23-38 and 40 are now pending.

Specification Amendments

The specification has been amended as noted in Part 1 above to remove reference to one of two particulate catalysts which has been determined to be incapable of facilitating room temperature conversion of carbon monoxide gas into carbon dioxide gas. The other exemplary particulate catalyst recited in the specification, mixed manganese copper oxide (typically known as Hopcalite), is capable of such catalytic conversion. The deleted catalyst, potassium permanganate, has been recognized in the art as incapable of such room temperature catalytic conversion, as noted in the attached August 1968 abstract, "The Feasibility of Using the Pressure-Time Data from a Solid-Gas Reaction As a Measure of the Reactivity of a Pyrotechnic Material."

Canceled Claims

Claims 1-12, 19-22 and 39 have either been canceled by the present amendment or by a previous amendment. Therefore, the only claims now pending are ones which have been allowed or noted as allowable.

Allowable and New Claims

Claim 13 has been amended into independent form by including therein the subject matter of canceled claim 1. Claims 14-18 depend on amended claim 13, and therefore should be allowable in conjunction with claim 13.

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These amendments have been made in accordance with requirements of form noted in the November 20 office action. Consideration of these claims is proper under 37 CFR 1.116.

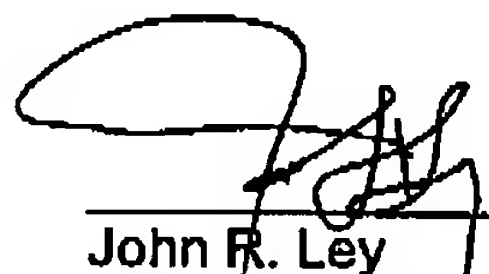
Claims 23-38 and 40 have been allowed.

Conclusion

As a result of these amendments, all pending claims in this application are in condition for allowance, as previously noted in the office action. Allowance is respectfully requested. The Examiner is requested to contact the undersigned by telephone to discuss any issues which may inhibit the immediate allowance of the application.

Respectfully submitted,

Date: 2/20/07

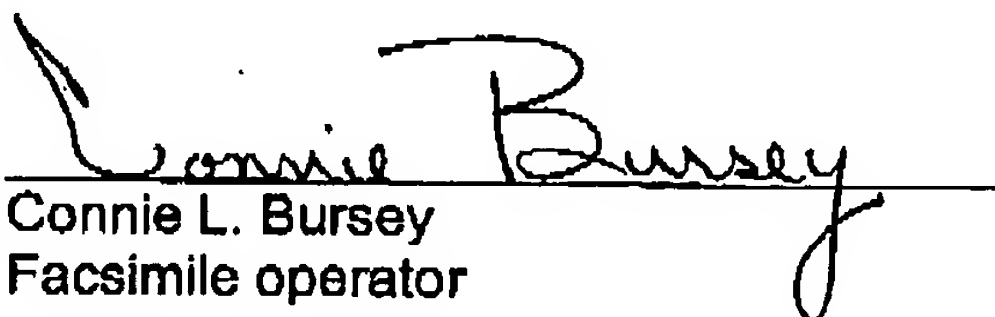


John R. Ley  
Registration No. 27,453  
ATTORNEY FOR APPLICANT

JOHN R. LEY, LLC  
5299 DTC Boulevard, Suite 610  
Greenwood Village, CO 80111-3321  
Telephone: (303) 740-9000  
Facsimile: (303) 740-9042

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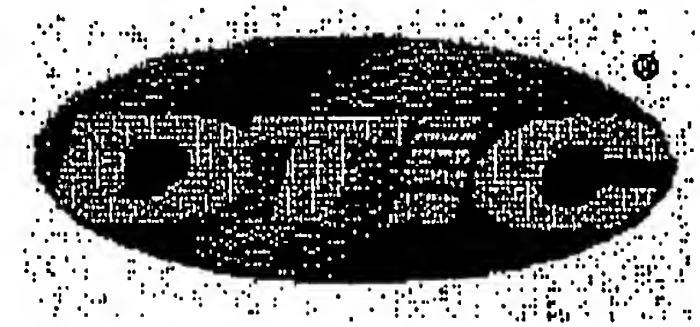
The undersigned hereby certifies that the foregoing **Amendment and Response to Final Office Action under 37 CFR 1.116**, including the attached transmittal letter showing that no additional fees are required, are being transmitted by facsimile to the United States Patent and Trademark Office, at the Central PTO facsimile number 571 273 8300, this 20<sup>th</sup> day of February, 2007.



Connie L. Bursey  
Facsimile operator

**Accession Number :** AD0679160

**Title :** THE FEASIBILITY OF USING THE PRESSURE-TIME DATA FROM A SOLID-GAS REACTION AS A MEASURE OF THE REACTIVITY OF A PYROTECHNIC MATERIAL.



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**Descriptive Note :** Final rept.,

**Corporate Author :** DENVER RESEARCH INST COLO

**Personal Author(s) :** Fay, Richard J.

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**Abstract :** A study was made of the feasibility of using the pressure-time curve generated by the reaction of a solid pyrotechnic material with a referee gas in a closed vessel as a measure of the reactivity of the material. It was found that fuels such as magnesium, aluminum, and boron could be reacted with oxygen while oxidizers such as sodium nitrate, potassium permanganate, and manganese dioxide could not be reacted energetically with hydrogen or carbon monoxide. The results from studies of magnesium reacted with oxygen indicate that the relative reactivity of powdered magnesium prepared by atomization and balling can be distinguished by the slope on the log-log plot of the pressure-time curve. (Author)

**Descriptors :** (\*PYROTECHNICS, \*BURNING RATE), GASES, PRESSURE VESSELS, OXIDATION, MAGNESIUM, ALUMINUM, BORON, OXIDIZERS, OXYGEN, NITRATES, ATOMIZATION, HYDROGEN, CARBON MONOXIDE, REACTION KINETICS

**Subject Categories :** PYROTECHNICS

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